

AMENDMENTS TO THE ABSTRACT:

A low-complexity and low-latency method and apparatus in multicarrier communication systems is used for protection and transmission of the side information related to peak-to-average power ratio (PAPR) reduction. The side information is encoded by an error-correction code and transmitted through a plurality of reserved sub-carriers. Modulation of the coded side information over the reserved sub-carriers is performed separately without re-performing data modulation. Therefore, the invention dramatically reduces implementation complexity. Determination of the related parameters for PAPR reduction can be based on the PAPR level of the data modulated signal with slight degradation in PAPR reduction performance or that of level of the transmitted signal with no degradation in PAPR reduction performance.